LOCUST WALK®

BIOPHARMA SELL-SIDE DEAL PROCESS KEYS TO SUCCESS

MAY 3, 2017

Locust Walk is positioned as a fully integrated advisor with all key capabilities necessary for life science transaction advisory

Investment Banks

Pros	Cons
Financial analytic capability	Lack of industry operating expertise
Board level network and contacts	Strategic deliverables unusual
Investor connectivity	Limited involvement early in process

Consulting Firms

Pros	Cons
Strategic analytic insights	Lack transaction capabilities
Board-ready deliverables	Not licensed as a broker/dealer
Primary/ secondary research specialty	Lack detailed company understanding

Locust Walk

Locust Walk integrates the benefits of multiple advisors to provide a full-service offering for clients

Full-Time Hire

Pros	Cons
Deep company understanding	Limited resources to execute transactions
Long-term commitment	Multiple work stream distractions
Operational expertise	Lack of broad experience (e.g., finance & partner)

Individual Consultant

Pros	Cons
Industry & operational expertise	Not licensed as a broker/dealer
Close working relationship with management team	Lack of broad experience (e.g., finance & partner)
	Limited resources

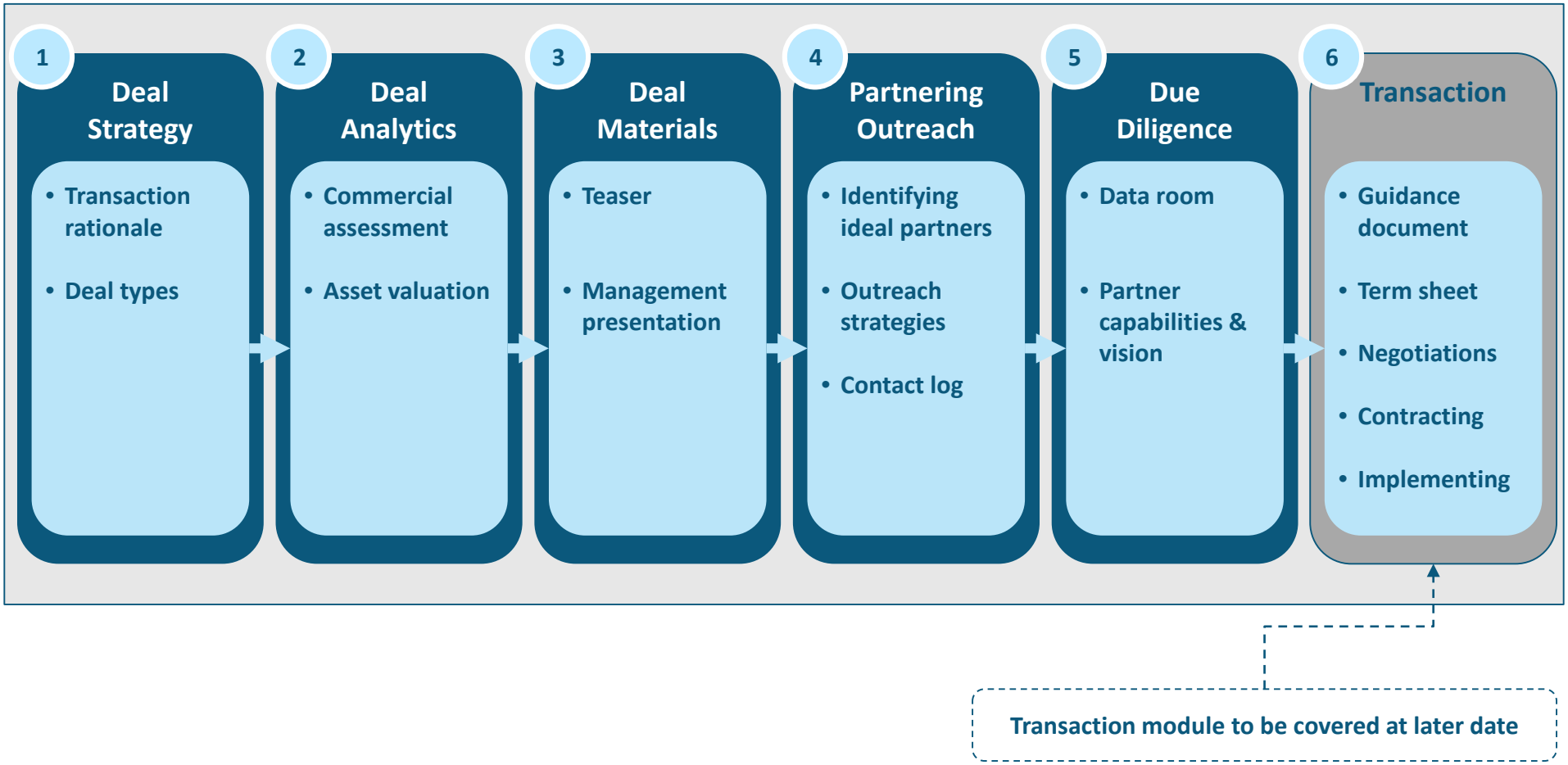
Locust Walk has helped build many successful life science companies

innocoll Advised on company acquisition GURNET POINT CAPITAL $55M Upfront, $154M CVR	pieris Sell-side Japan/Asia collaboration for PRS-080 ASKA Pharmaceutical $2.75M Upfront, $80M Milestones, Plus Royalties	pieris Sell-side immuno-oncology collaboration SERVIER $31M Upfront, $539M Milestones, Plus Royalties	TesoRx Sell-side Japan licensing agreement for THG-1001 ASKA Pharmaceutical Undisclosed	CYMABAY THERAPEUTICS Sell-side US licensing agreement for arhalofenate Kowa $15M Upfront, $190M Milestones, Plus Royalties	STRONGBRIDGE BIOPHARMA Buy-side US rights acquisition for Keveyis TaroPharma $8.5M Upfront, Undisc. Milestones and Royalties
Thar Pharmaceuticals Advised on company acquisition GRÜNENTHAL Undisclosed	NeoTX Therapeutics Buy-side licensing agreement for ANYARA Active Biotech $250K Upfront, $71M Deal Value	SAVARA Identified and initiated buy-side acquisition SERENDEX Pharmaceuticals Undisclosed	strategic SCIENCE & TECHNOLOGIES, LLC Sell-side license for Canadian rights of IbuCream Leading Consumer Health Co Undisclosed	ADVAXIS IMMUNOTHERAPIES™ Immuno-Oncology Advisor Undisclosed	medgenics Development & commercial collab. for anti-LIGHT mAb KYOWA KIRIN Undisclosed
STRONGBRIDGE BIOPHARMA Advised on IPO process and syndicate selection $25M NASDAQ IPO	REGENERON Sell-side Asian licensing agreement for fasinumab Mitsubishi Tanabe Pharma $55M Upfront, $270M Milestones	ARMETHEON Sell-side Asian licensing agreement for Tecarfarin LEE'S PHARM. 李氏大藥廠 Undisclosed Value	STRONGBRIDGE BIOPHARMA Buy-side licensing agreement for ALT1103 for Acromegaly antisense THERAPEUTICS $5M Upfront, $105M Milestones, Plus Royalties	STRONGBRIDGE BIOPHARMA Buy-side asset acquisition of Somatoprim for Acromegaly Aspireo Pharmaceuticals $30M in Cortendo Equity	STRONGBRIDGE BIOPHARMA Advised private placement to leading healthcare investors BROADFIN, Granite Point Capital, RACapital, TVM Capital, LCA, HealthCap, NEA. $33.2M Private Placement
ONXEO THE ORPHAN ONCOLOGY INNOVATOR Sell-side North American Oravig® rights DARA BioSciences Undisclosed Value	ARMETHEON Advised on Series B financing Life Science Investors $24.3M Series B	STRONGBRIDGE BIOPHARMA Advised private placement to leading healthcare investors NEA. RACapital BROADFIN HealthCap $26.4M Private Placement			

Locust Walk has closed 21 transactions across a variety of deal types, stages of development and therapeutic areas since 2015

Locust Walk Institute sell-side process

Getting to a term sheet



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Sell-side Process: Keys to Success

AGENDA

1. Deal Strategy
2. Deal Analytics
3. Deal Materials
4. Partnering Outreach
5. Due Diligence

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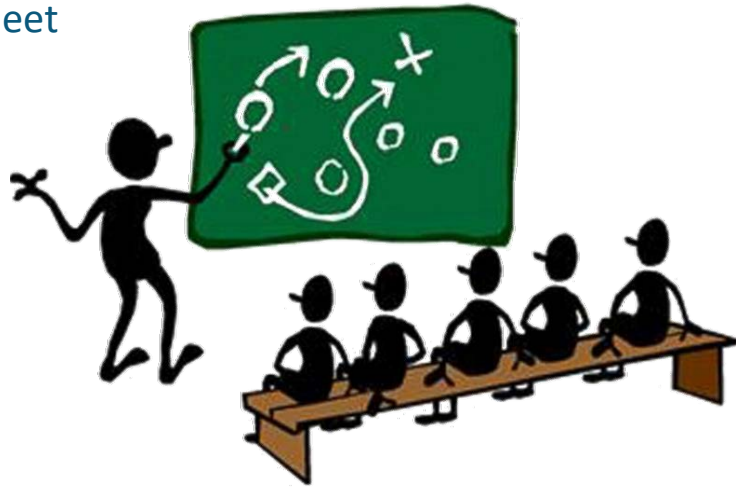
DEAL STRATEGY:

CORPORATE STRATEGY DRIVING BUSINESS DEVELOPMENT OBJECTIVES

Business development objectives should align with corporate strategy

- Before beginning a partnering process, the following should be clear:
  1. What is the corporate strategy?
     - Who do you want to be -- FIPCO, sponsored research shop, develop to PoC, platform co.?
  2. Why are we partnering?
     - Financing, capabilities, validation and / or focus on higher priority program(s), etc.
  3. What are we partnering?
     - Field, territory, full or co-development rights, full or co-marketing rights, etc.
  4. What are we seeking?
     - Deal guidance
     - Structural term sheet



Deal structure should flow from strategic objectives

Reason for Deal	Deal Structure
Hand-off and exit	M&A / asset sale
Augment development / commercial capabilities	License and collaboration agreement (co-development / co-promotion)
Access geographic capabilities	Geographic license
De-risk and validate technology	Option agreement
Create new entity to access new capabilities for financial, strategic or focus reasons	Joint venture

Strategic consideration: Retaining US rights has significant valuation premium

Royalty Companies (pure royalty recipients on a single commercial product):

	Company	Drug	Ent. Value	Acquired value	Acquisition premium	LTM / LQA revenue	Revenue multiple
Gave Up US Rights	Immunogen	Kadcyla	141	NA	NA	30	4.6
	Sucampo	Amitza	598	NA	NA	231	2.6
	Innoviva	Elipta	1,810	NA	NA	134	13.5
	Enanta	Hep-C	339	NA	NA	42	8.1
						Mean	**7.2**
						Median	**6.4**

US Profit Share or US Retained Rights Companies (keeping 50% - 100% US profits of single product):

	Company	Drug	Ent. Value / Acquired Value*	Acquisition premium	LTM / LQA revenue	Revenue multiple
Kept US Rights	Ariad	Iclusig	5,200	75%	137	37.9
	Medivation	Xtandi	14,000	21%	825	17.0
	Pharmacyclics	Imbruvica	21,000	39%	823	25.5
	Clovis	Rubraca	2,790	NA	78	35.8
	Seattle Genetics	Adcetris	9,230	NA	418	22.1
	Corcept	Korlym	1,050	NA	87	12.1
	Incyte	Jakafi	25,770	NA	1,105	23.3
					Mean		**24.8**
					Median		**23.3**

Source: GlobalData, Yahoo Finance, SEC.gov, Locust Walk analysis

** Note: For companies that were acquired, the acquired value was used as the numerator to calculate multiple. For other companies, Enterprise Value was used*

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DEAL ANALYTICS:

GROUNDED PERSPECTIVE ON VALUE

Transaction value expectations should be based on data and grounded with realistic commercial assumptions

eNPV

Key Components:
- TPP
- Commercial assessment
- Revenue projections

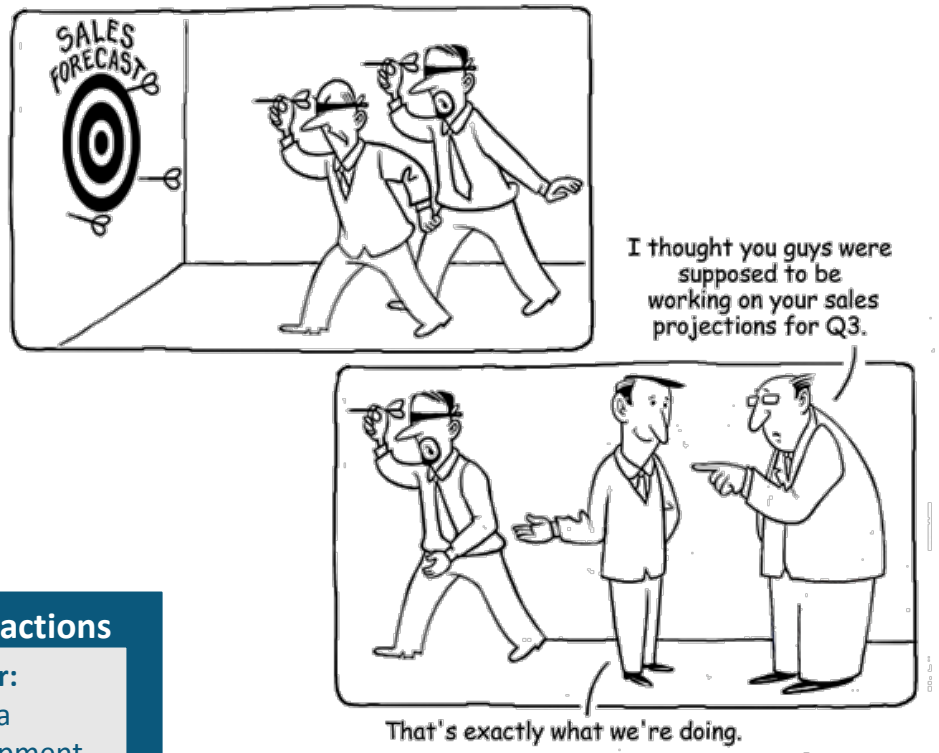
Value Triangulation

Company / IPO Comparables

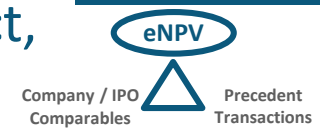
Criteria to consider:
- Company's pipeline
- Stage of development / commercial presence
- Key asset description

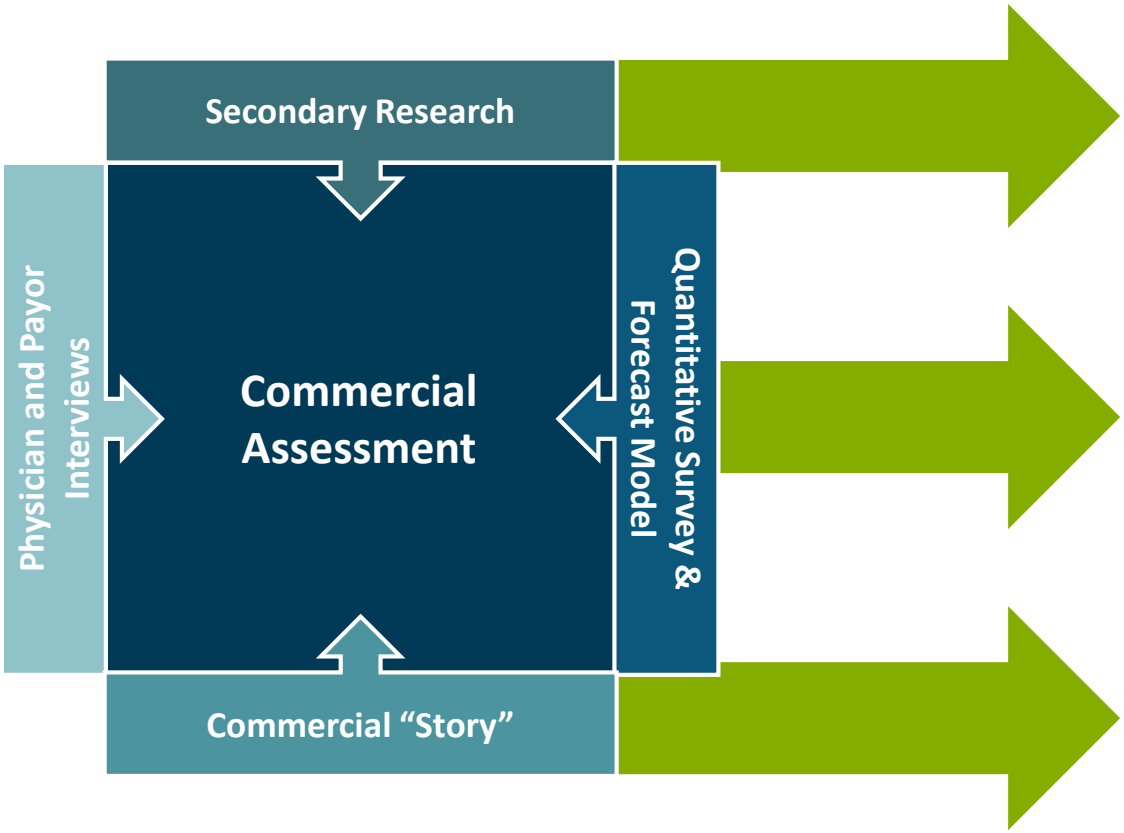
Precedent Transactions

Criteria to consider:
- Therapeutic area
- Phase of development
- Opportunity size
- Special designations



Assessment should tell a commercial "story" about a product, the market it will compete in, and how it will perform





Internal Strategy

- Clinical and commercial strategy based on commercial opportunity
- Guide transaction objectives

Partnering Discussions

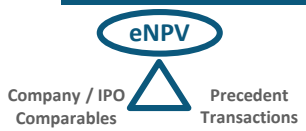
- Confidential management presentation
- Commercial planning

Deal Negotiations

- Revenue forecast serves as the foundation for the valuation and deal models

Locust Walk specializes in leveraging commercial assessments, either completed by LW or third parties, into the product positioning to generate a more compelling story for a deal

Understanding product revenue is the first step to understanding value



Revenue Model

- Begins with primary and secondary research
  - KOL calls / survey
  - Review of market & competitive landscape
  - Key unmet needs and differentiators
- Key model inputs driven by
  - Market size & segmentation
  - Predicted penetration in each segment
  - Compliance / adherence
  - Price

Output

Annual Revenue Forecast Through LOE

Valuation Model

- ***Starts with revenue forecast***
- Understanding of key costs
  - Cost of goods
  - Sales and marketing
  - R&D
- Quantification of risks
  - Clinical and regulatory risks (clinical stage)
  - Operational risks of company

Output

Standalone Product eNPV

Deal Model

- ***Starts with product valuation***
- Divides value among parties with deal terms
  - Upfront
  - Milestones
  - Royalties
- Quantify additional costs & sources of value
  - Synergies with existing operations
  - Tax implications
  - Financing costs

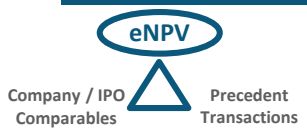
Output

Deal NPV

Tips for Revenue Modeling

- Build multiple revenue scenarios to allow testing of key sensitivities
- Source or cite rationale for all model assumptions – key is to make the model defendable to potential partners
- Build models that are clear and easy to follow, as they may be reviewed by colleagues, or, even potential partners

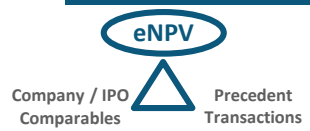
Example: Product X revenue model assumptions

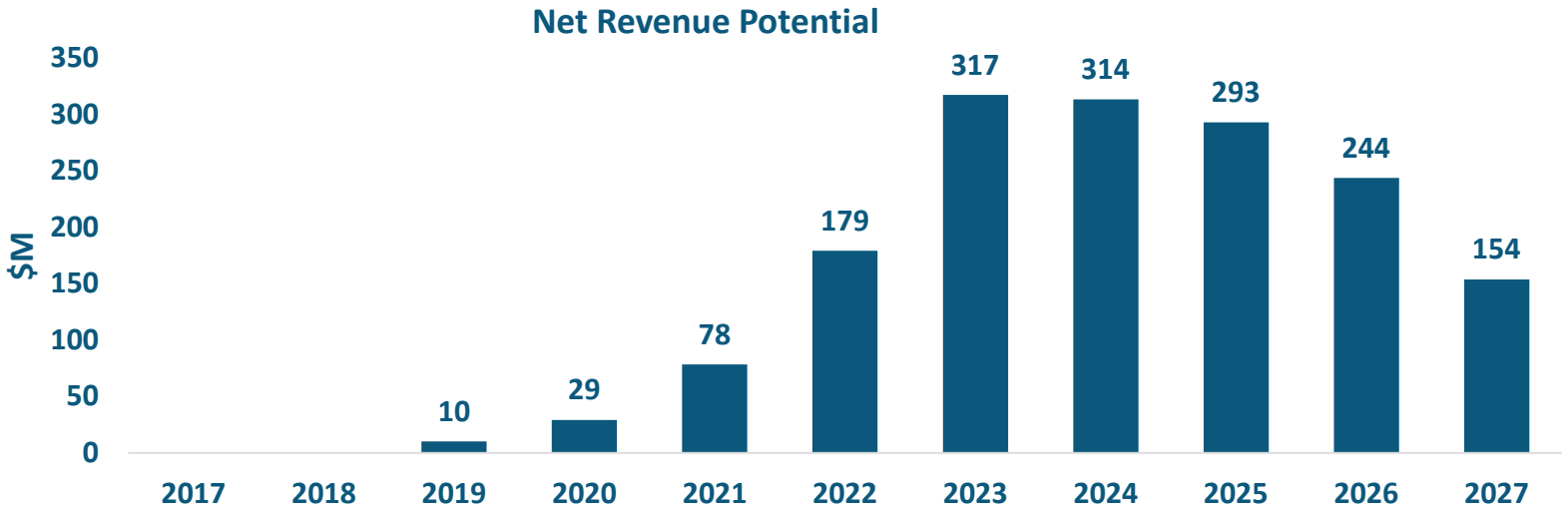


Assumption	Figure	Rationale / Source
MI & Stroke Populations		
MI Prevalence (2016)	8.2M	*http://www.heart.org/idc/groups/heart-public/@wcm/@sop/@smd/documents/downloadable/ucm_449846.pdf*
MI Incidence (2016)	735K	*http://www.cdc.gov/heartdisease/facts.htm*
Stroke Prevalence (2016)	7.2M	*https://www.heart.org/idc/groups/heart-public/@wcm/@sop/@smd/documents/downloadable/ucm_449858.pdf*
Stroke Incidence (2016)	795K	*https://www.heart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_480086.pdf*
Total Product X-Treated Patients		
Market Research "Haircut"	33%	*Locust Walk assumption due to bias from physician over-estimation of future prescription level; standard market research practice*
Total Potential Patients (2023)	673K	*Locust Walk Quantitative Survey (Fall, 2016)*
Commercial Trajectory		
Launch Year	2019	*Client produced materials*
Peak Revenue Year	2023	*Locust Walk analysis based on Product X's patent life and input from client's team*
Market Exclusivity	5	*Hatch-Waxman protection, Locust Walk assumption*
Penetration Erosion	Inverse of Uptake Curve	*Conservatively rapid erosion due to competitive entrants' ability to reformulate generic components*
Other Key Assumptions		
Net Price	$60 / Month	*Recommended price from previous market research*
Annual Price Growth	2%	*Conservative Locust Walk assumption*
Penetration Adjustment Due to Premium Price	40%	*Locust Walk Quantitative Survey (Fall, 2016); Physicians mentioned prescription rates would decrease by 40% if priced at a premium to generic components*

NOTE: Locust Walk masked client analysis

Example: Product X probability-adjusted US revenue projection





Parameter Sensitivity

Price

Adjustment due to Premium Price	$30	$40	$50	$60	$70	$80	$90
35%	$172M	$229M	$286M	$344M	$401M	$458M	$516M
40%	$159M	$212M	$264M	$317M	$370M	$423M	$475M
45%	$145M	$194M	$242M	$291M	$339M	$388M	$436M

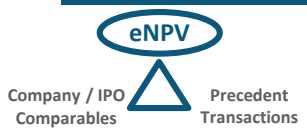
Upside: Product X garners $80 / month net price, and physicians only adjust their likelihood to prescribe a premium-priced product by 35%

Base-case: Product X garners $60 / month net price, and physicians adjust likelihood to prescribe a premium-priced product by 40%

Downside: Product X only achieves $40 / month net price, and physicians are 45% less likely to prescribe premium-product

NOTE: Locust Walk masked client analysis

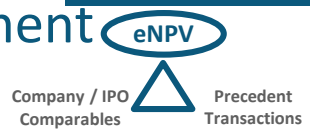
Example: Product X expense and other modeling assumptions



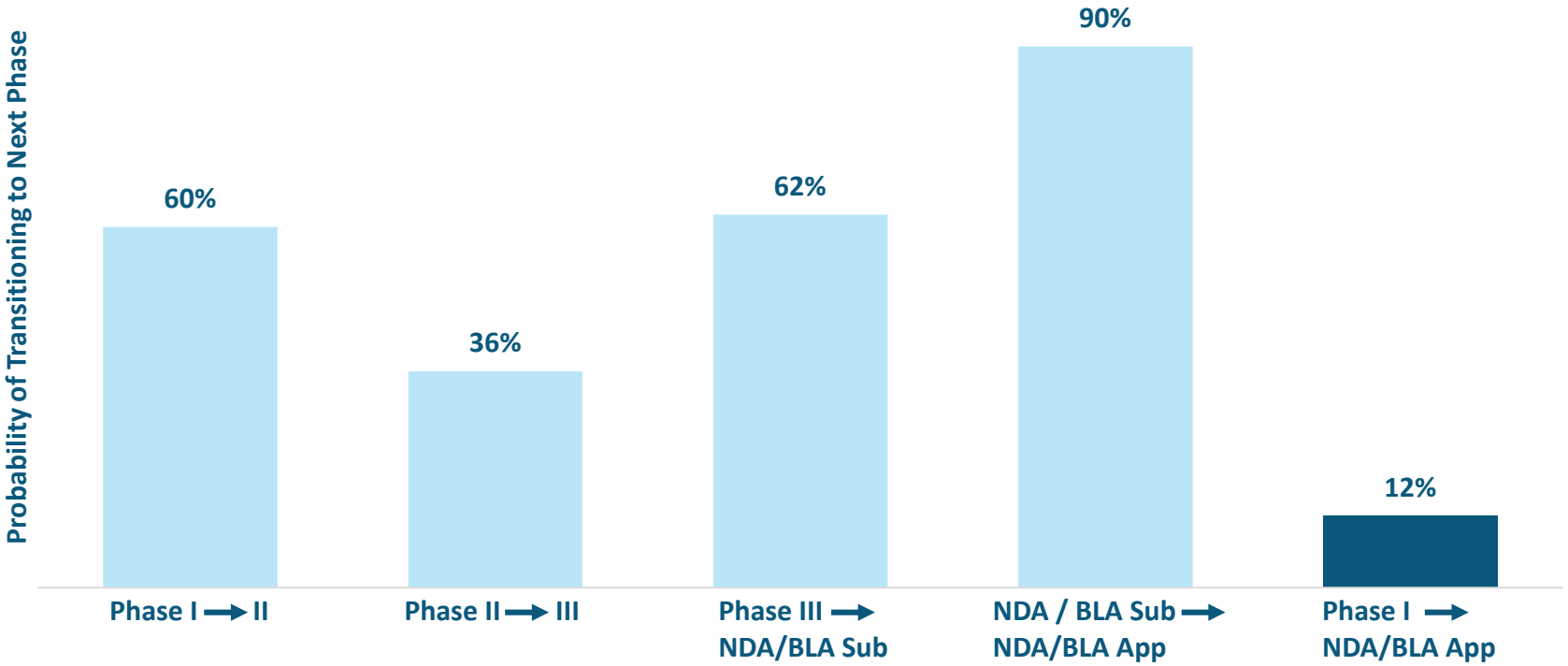
Assumption	Figure	Rationale / Source
P&L		
COGS	5%	*Conservative assumption based on client's anticipated COGS*
SG&A	35%	*Assumption based on analogous products*
Clinical Development Expense	$2,500,000	*Internal client projections (all occurring in 2017)*
NDA Preparation Expense	$1,000,000	*Internal client projections (occurring in 2018)*
PDUFA Fee	$2,000,000	*Internal client projections (occurring in 2017)*
Product Launch Expense	$5,000,000	*Conservative assumption, based on analogous products*
NPV		
Tax Rate	35%	*US corporate tax rate*
Cost of Capital	12%	*Conservative assumption, based on similarly situated companies*
Probability of Approval	95%	*SPA in place, 505(b)2 regulatory pathway, 6 of 7 FDA required studies complete, approved in EU and RoW, pivotal PK study enrollment 80% complete and aimed to replicate existing PK data*

NOTE: Locust Walk masked client analysis

Probability of approval highly impacted by stage of development



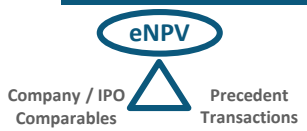
Clinical Phase Transition Probabilities and Overall Clinical Approval Success Rate



Therapeutic new molecular entities and new therapeutically significant biologic entities first tested in humans, 1995 - 2007

SOURCE: DiMasi et al., Tufts Center for the Study of Drug Development, Nov. 2014

Example: Product X NPV model ($000s)



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Prob Adj. Net Revenue			**10,098**	**29,191**	**78,373**	**179,121**	**317,317**	**313,477**	**293,111**	**243,874**	**153,704**	**56,830**	**9,546**	**6,565**	**4,279**
COGS			505	1,460	3,919	8,956	15,866	15,674	14,656	12,194	7,685	2,842	477	328	214
Gross Margin			**9,593**	**27,732**	**74,454**	**170,165**	**301,452**	**297,803**	**278,455**	**231,680**	**146,019**	**53,989**	**9,069**	**6,237**	**4,065**
SG&A			3,534	10,217	27,430	62,692	111,061	109,717	102,589	85,356	53,796	19,891	3,341	2,298	1,498
Clinical Expense															
NDA Preparation		1,000													
PDUFA FEE	2,000														
Launch Expense			5,000												
Total Expenses	**4,500**	**1,000**	**8,534**	**10,217**	**27,430**	**62,692**	**111,061**	**109,717**	**102,589**	**85,356**	**53,796**	**19,891**	**3,341**	**2,298**	**1,498**
EBITDA	**(4,500)**	**(1,000)**	**1,059**	**17,515**	**47,024**	**107,473**	**190,390**	**188,086**	**175,867**	**146,324**	**92,222**	**34,098**	**5,728**	**3,939**	**2,568**
Tax				4,576	16,458	37,615	66,637	65,830	61,553	51,213	32,278	11,934	2,005	1,379	899
Net Operating Loss	(4,500)	(5,500)	(4,441)												
Net Income	**(4,500)**	**(1,000)**	**1,059**	**12,939**	**30,565**	**69,857**	**123,754**	**122,256**	**114,313**	**95,111**	**59,945**	**22,164**	**3,723**	**2,560**	**1,669**
Present Value	**(4,500)**	**(893)**	**844**	**9,210**	**19,425**	**39,639**	**62,698**	**55,302**	**46,169**	**34,298**	**19,301**	**6,372**	**956**	**587**	**341**
eNPV	**289,748**														

eNPV Sensitivity

Adjustment due to Premium Price \ Price	$30	$40	$50	$60	$70	$80	$90
35%	$154M	$207M	$261M	$314M	$368M	$422M	$475M
40%	$141M	$191M	$240M	$290M	$340M	$389M	$438M
45%	$129M	$174M	$220M	$265M	$310M	$356M	$401M

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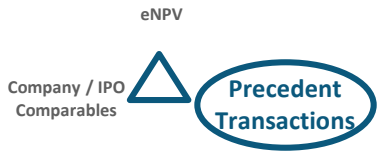
NOTE: Locust Walk masked client analysis

Example: Product X deal precedents



Licensor / Seller	Licensee / Buyer	Deal Type	Date	Asset	Dev'l Phase	Indication	Upfront ($M)	Total ($M)	Royalty	Comment
Conatus Pharmaceuticals	NOVARTIS	License	12/16	Emricasan	Phase 2b	NASH	$50	$707	Tiered, teens - twenties	Orphan and fast-track designation; collaboration has potential for combo or emricasan-only products
ReveraGen BioPharma	ACTELION	Option	11/16	vamorolone	Phase 2	DMD	$10	$368	Tiered, single - double-digit	Option agreement for steroid modulator
raptor	HORIZON PHARMA	Acq.	09/16	Procysbi	Approved	Nephrotic Cystinosis	$800	$800	N/A	Though approved, serves as high-end comp because indication is similar to Product X's
MEI pharma	HELSINN Building quality cancer care together	License	08/16	Pracinostat	Phase 3-ready	AML	$15	$464	Tiered	AML has orphan designation; Phase of development is identical to client
Celator Pharmaceuticals	Jazz Pharmaceuticals	Acq.	05/16	Vyxeo	Registration	AML	$1,500	$1,500	N/A	Though registration phase, serves as high-end comp because patient population is similar in size
CANCER PREVENTION PHARMACEUTICALS	SUCAMPO	Option	11/16	CPP-1X	Phase 3	FAP	$18	$208	N/A	FAP (familial adenomatous polyposis) is orphan GI indication with approx. 30,000 US cases
Sciederm	Amicus Therapeutics	Acq.	08/15	Zorblisa	Phase 3-ready	Epidermolysis bullosa	$229	$847	N/A	Orphan derm indication with approx. 40,000 patients, deal includes priority review voucher
agtc	Biogen	License	07/15	XLRS, XLRP	Phase 2	X-linked retinoschisis	$124	$1,593	Tiered, single - double-digit	Deal includes two assets (one P2, one preclinical); indication is orphan ophthalmology
AM-Pharma	Pfizer	Acq.	05/15	ReCap	Phase 2	AKI related to sepsis	$88	$600	N/A	Minority stake investment with option to acquire entire company
TROPHOS	Roche	Acq.	01/15	olesoxime	Phase 2	Spinal muscular atrophy	$139	$545	N/A	SMA affects between one in 6,000 and one in 10,000 children WW
OPKO	Pfizer	License	12/14	hGH-CTP	Phase 3	GHD	$295	$570	Tiered, double-digit	OPKO also eligible for profit-sharing
geron	janssen	License	11/14	imetelstat	Phase 2	Myelofibrosis	$35	$935	Tiered, teens - twenties	Companies will split R&D costs 50-50
Brabant Pharma	ZogenIX	Acq.	10/14	Brabafen	Phase 2	Dravet syndrome	$35	$130	Undisclosed	Staged acquisition for pediatric orphan indication, one phase behind Product X
ambit	Daiichi-Sankyo	Acq.	09/14	quizartinib	Phase 3	AML	$315	$410	N/A	Deal was completed after Astellas dropped Ambit in 2012
Precedents analysis for post-PoC Orphan transactions in past 3 years						**MEAN**	**$230**	**$702**		
						MEDIAN	**$88**	**$557**		

NOTE: Locust Walk masked client analysis. SOURCE: Global Data, Recap.

Example: Product X IPO comparables

eNPV

Company / IPO Comparables

Precedent Transactions

Company	Ticker	Exch.	IPO Date	Indication / TA	Pipeline / Company Description at IPO	Raise ($M)	Post-IPO Val. ($M)	Current Mkt Cap* ($M)	Current Pipeline / Company Description
inventiva	IVA	EPA	02/17	NASH	Lead asset in Phase 2b for NASH, preclinical programs partnered with AbbVie & BI	$51	$141[1]	$127	Same
Protagonist Therapeutics	PTGX	NASDAQ	08/16	IBD	Phase 1 IBD pipeline, targeting multiple orphan indications	$90	$191	$209	IBD Phase 1 trial has been completed
GenSight	SIGHT	EPA	07/16	Ophthalmic	Lead product is Phase 3 for orphan ophth. indication (LHON)	$51	$161	$149	Lead Phase 3 has completed enrollment
WILSON THERAPEUTICS	WTX	STO	05/16	Hepatic	Single asset company in Phase 2 for orphan indicated Wilson disease	$59	$160[2]	$148	Same
aeglea	AGLE	NASDAQ	04/16	Rare Urea Cycle	Early stage company with lead indication involving excessive blood arginine levels	$55	$129	$102	Company has moved lead program into Phase 1/2 and received orphan designation
AXSOME THERAPEUTICS	AXSM	NASDAQ	11/15	CRPS	Phase 3 orphan designated, reformulated zoledronate tetrahydrate	$51	$180	$95	Received fast-track designation in other indications (OA)
EDGE Therapeutics, Inc.	EDGE	NASDAQ	10/15	CNS	Lead asset (EG-1962) is Phase 3-ready for aSAH, an orphan indication	$93	$302	$282	EG-1962 has advanced into Phase 3
CHIASMA	CHMA	NASDAQ	07/15	Acromegaly	Phase 3 orphan product using 505(b)(2) pathway, changing IV to oral octreotide	$117	$383	$47	Received complete response letter from FDA
catabasis	CATB	NASDAQ	06/15	DMD	Phase 1/2-ready lead candidate seeking orphan designation for DMD	$69	$184	$29	Granted orphan designation, top-line results reported negative data
KemPharm	KMPH	NASDAQ	04/15	Pain	NDA filing expected 2H15, lead product is 505(b)(2) hydrocodone/APAP combination	$56	$148	$67	Received complete response letter from FDA
Cerenis THERAPEUTICS	CEREN	EPA	03/15	Metabolic	Lead asset is Phase 3-ready for orphan indicated FPHA	$57	$247[3]	$38	Announce negative data from Phase 2 for Post-ACS (non-orphan indication)
FIBROGEN	FGEN	NASDAQ	11/14	Anemia, Oncology	Two platform company with lead product in Phase 3 for anemia in CKD	$168	$1,041	$1,520	Phase 3 enrollment has completed and endpoints have been met
PROTEON Therapeutics	PRTO	NASDAQ	10/14	Renal	Phase 3-ready for vascular access failure in CKD, fast track and orphan designation	$70	$159	$29	Negative top-line Phase 3 data readout
					MEAN	**$92**	**$314**	**$517**	
					MEDIAN	**$77**	**$225**	**$164**	

IPO analysis for single product, post-PoC, Orphan and/or Hepatic companies in past 3 years

NOTE: Locust Walk masked client analysis. SOURCE: Global Data, Recap.

[1] Company press release, [2] Company press release (FirstWordPharma), [3] Reuters

*As of 3/31/2017

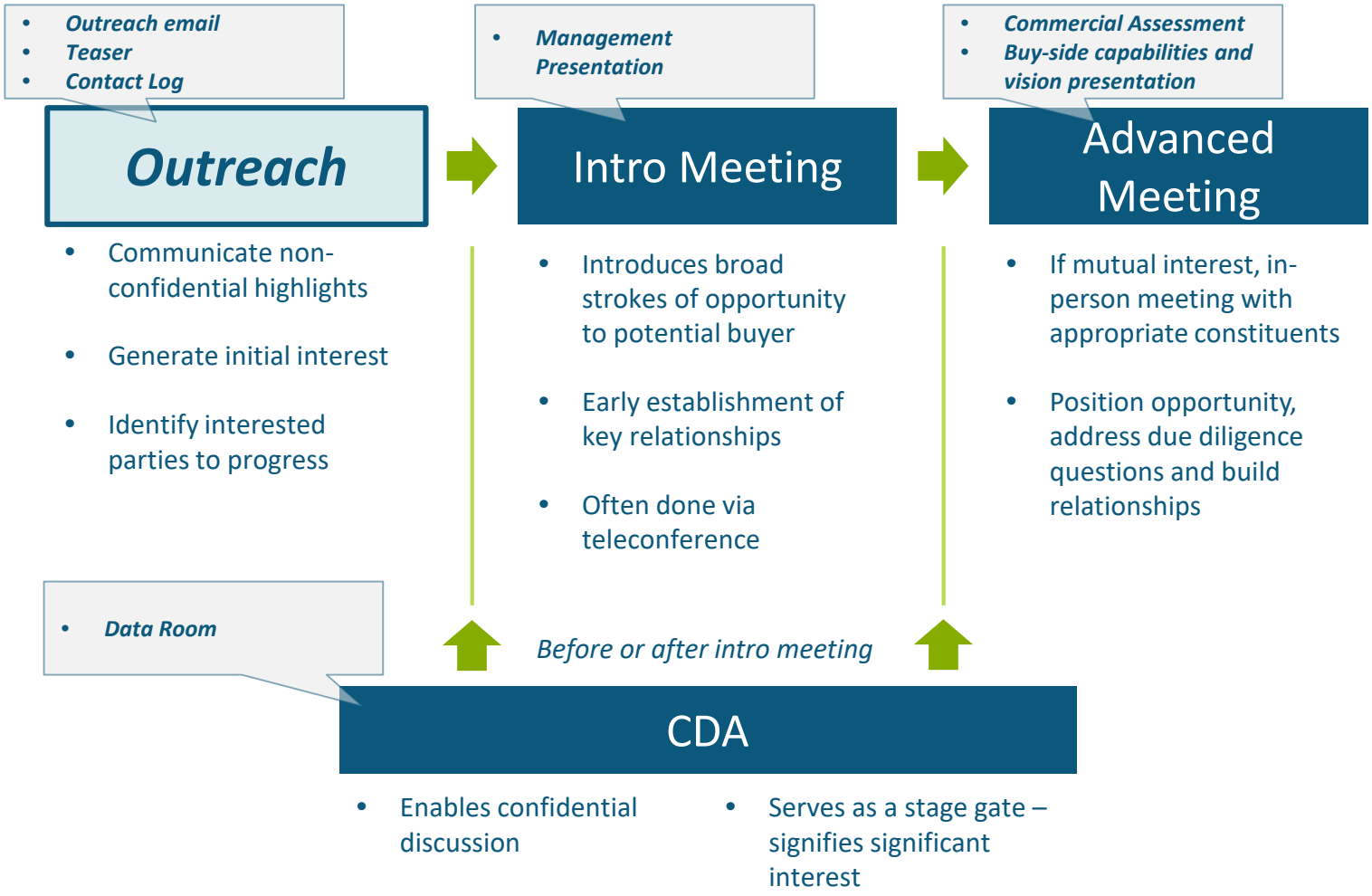
LOCUST WALK®

DEAL MATERIALS:

COMPELLING PRESENTATION MATERIALS

TEASER | MANAGEMENT PRESENTATION

Materials and documentation needed to support deal process



KEY

Materials required at each stage of process

Non-confidential teaser is a two page summary of the partnering opportunity and is generated from management presentation

Teaser sections

Opportunity Overview → Unmet Need and Value Prop → Clinical Data and Trial Information → Market Overview and Product Position → Commercial Opportunity → Summary and Contact Information → Other/ Asset Specific

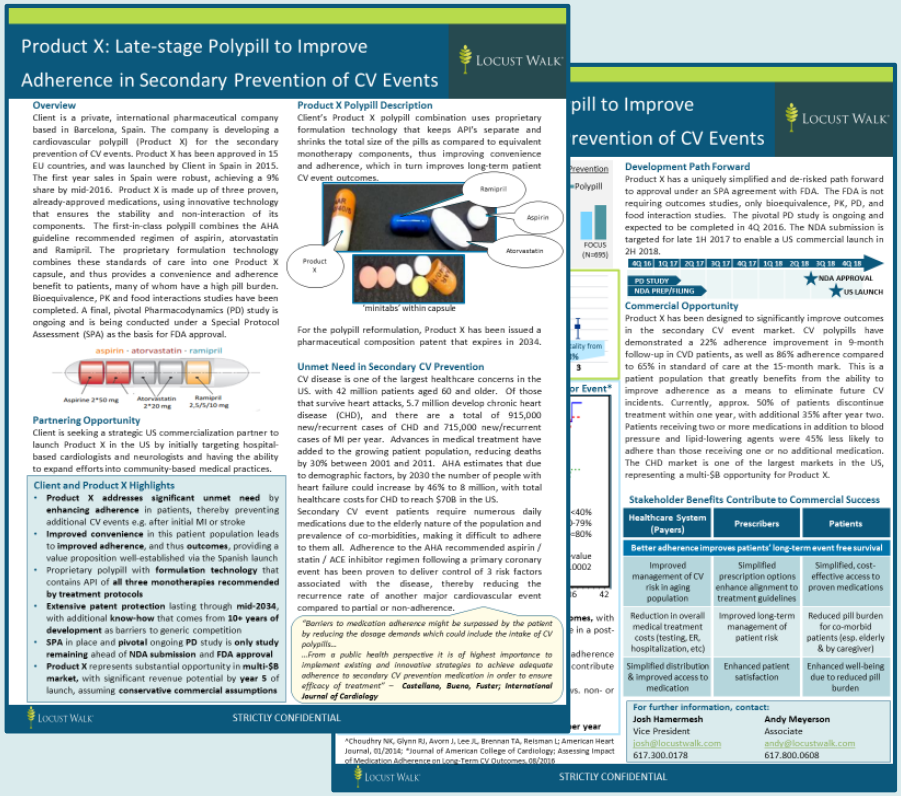
Teaser Overview

- The teaser provides enough information to tell the asset story and for the reader to see if the asset is a potential fit for their strategy
- From a writing perspective, we want to "tease" the reader to want more information
- Goal is to get to intro call or CDA

Useful Resources

- Management Presentations
- UpToDate
- Medscape
- Pubmed
- Disease foundation websites
- Global Data
- Clinicaltrials.gov

Example



Sample outreach email for Product X

Dear [RECIPIENT],

I hope this e-mail finds you well. [Insert something personal if known contact]. [If new contact: By way of introduction, my name is [SENDER] with Locust Walk, a transaction advisory firm for the life sciences industry]. I am reaching out on behalf of our Client.

As you are probably aware, [Company] is a large, private pharmaceutical company headquartered in [Location]. The company has developed a proprietary cardiovascular polypill (Product X) consisting of aspirin (100mg), atorvastatin (40mg) and Ramipril (2.5mg, 5mg or 10mg) for the secondary prevention of CV events. Product X has already been approved and launched in 15 European countries. Product X uptake in the Europe has been robust and, as it is nearing a US approval, [Company] is seeking an exclusive strategic partner to commercialize Product X in the US.

We thought [COMPANY NAME] would be interested in learning more about Product X based upon [*insert strategic rationale].* (if appropriate add:) While we are aware that [COMPANY NAME] reviewed Product X previously (insert details), given the strategic fit, recent progress, positive commercial experience in Europe and impending NDA submission, we encourage you and your team to take a fresh look at this opportunity.

A brief description of the opportunity is included in the attached non-confidential overview, including the following highlights:

- Anticipated NDA filing in 2017 with US commercial launch in 2018 – substantial market opportunity in multi-$B market with significant revenue potential
- First-in-class polypill combines the AHA guideline recommended regimen of all three monotherapies (aspirin, statin and ACE inhibitor) for secondary prevention
- Addresses significant unmet need by enhancing adherence and convenience
- Final, pivotal PD study is ongoing under a SPA for FDA approval
- Extensive patent protection through mid-2034 with additional know-how protection as barriers to generic competition

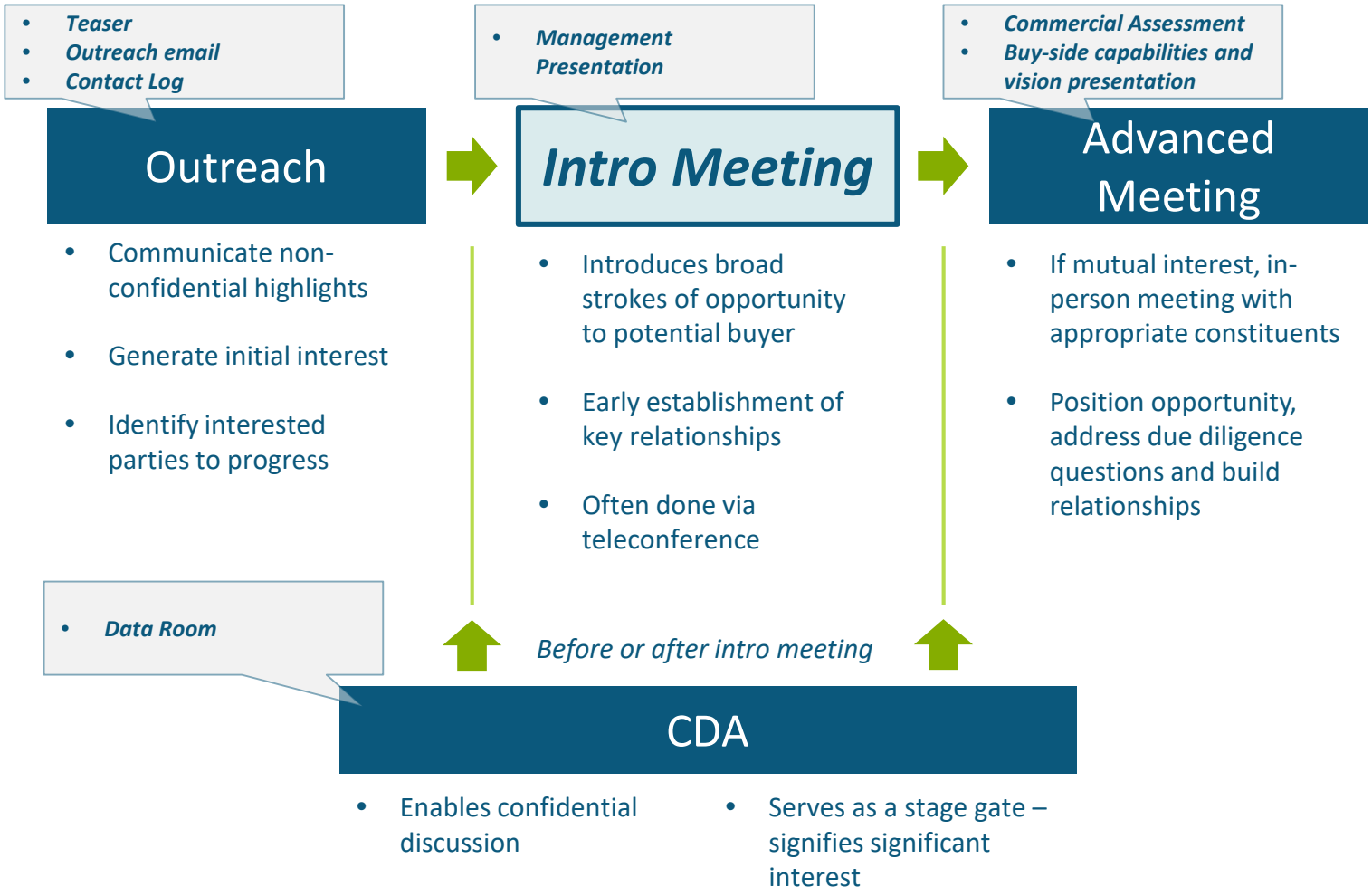
We would welcome the opportunity to discuss the Product X opportunity with you in more detail. If there is someone else at [COMPANY NAME] who is a more appropriate point person, I would greatly appreciate you forwarding this to them and facilitating an introduction.

We appreciate your time and look forward to your response.

Warm regards,
[SENDER NAME]

Goal is clear, focused communication of an often long and complex message

Materials and documentation needed to support deal process



The management presentation serves as the backbone for all marketing materials and is a comprehensive overview of the company/asset

Management Presentation Storyboard

1 Overview of the Company
- Company background
- Management team
- Product overview with a focus on asset to be partnered

2 Indication & Unmet Need
- Disease overview
- Includes epidemiology, patient treatment flow, current therapy paradigm and competitive landscape
- Unmet needs for the indication

3 Asset Overview
- Discusses specific value-add of asset
- Differentiated features
- How asset addresses unmet needs
- Overview of mechanism of action of API

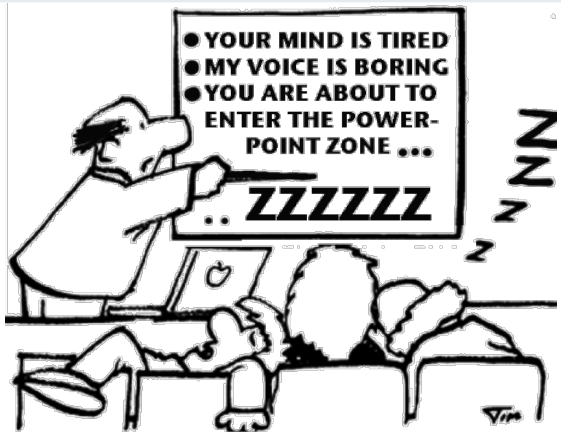
4 Clinical Data
- Most recent clinical data
- Clinical development plan and timeline
- Regulatory discussions and plan

5 Commercial Analysis: Physician and Payor Response
- Commercial assessment (optional)
- Competitive landscape
- Positioning relative to competitors
- Market size/opportunity

6 Financial Analysis: Commercial Potential
- Revenue projections (if available)
- Deal precedents
- Intellectual property

Common pitfalls of management presentations

Common Pitfall	Shortcomings
Unclear story	• Information does not flow and present a cohesive story of the product opportunity
Too many slides	• Does not present the most important information; should clearly, concisely present the opportunity
Product positioning	• Does not demonstrate the product's unique, differentiated features and how its addresses a need in the market
Commercial opportunity	• Does not clearly show the revenue potential for the product
Data for the sake of data	• Should show the most important data to the story not all data that has been generated
Not tailored to audience	• Information does not appropriately address the key questions of the audience



LOCUST WALK®

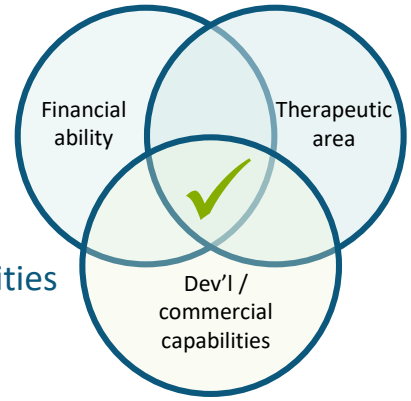
PARTNERING OUTREACH:

IDENTIFYING POTENTIAL PARTNERS AND OUTREACH STRATEGY

Tiering the contact log provides an opportunity to predict which partner is likely to transact

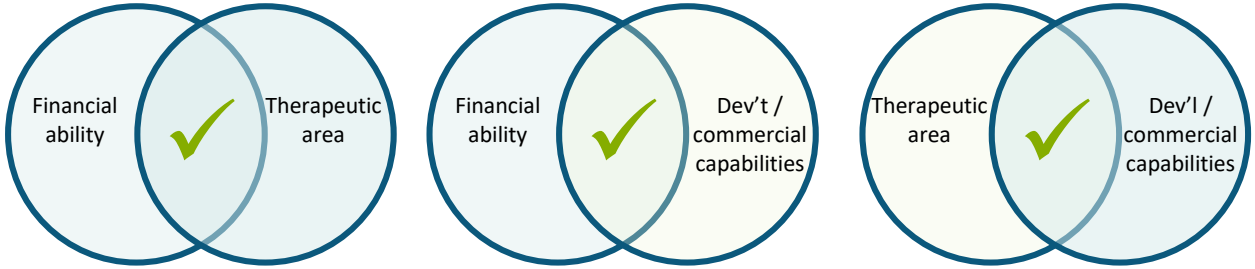
Tier 1

- Must meet all three criteria
  - Financial ability
  - Synergistic therapeutic area
  - Synergistic development / commercial capabilities



Tier 2

- Must meet two of the three criteria



Tier 3

- Opportunistic buyer
- May not fit into multiple criteria
- Corporate strategy indicates that Product X could make sense as a target investment

Illustrative immuno-oncology contact log highlights how to analyze potential partners

1) Commercial-stage IO Products

Rationale / Criteria

- Financial ability to in-license / acquire early-stage immunotherapy platform
- Seeking to leverage IO commercial presence and enhance immunotherapy pipeline

Bristol-Myers Squibb

Genentech

MERCK

2) Large Cap Development-stage IO Products

Rationale / Criteria

- Financial ability to in-license / acquire early-stage immunotherapy platform
- Seeking to enter immunotherapy or bolster immunotherapy pipeline

abbvie

GILEAD

AMGEN

Incyte

astellas

Johnson & Johnson

AstraZeneca

Lilly

BAYER

NOVARTIS

Pfizer

Celgene

SANOFI

Daiichi-Sankyo

EMD SERONO

Takeda

3) Small/Mid Cap Development-stage IO Products

Rationale / Criteria

- Small / mid-cap, specialty companies
- Development-stage or early commercial
- Have immunotherapy pipeline and seeking to bolster it

ADURO BIOTECH

Jounce THERAPEUTICS

agenus

JUNO THERAPEUTICS

agios

Kite Pharma

bluebirdbio

MACROGENICS

cellectis

SeattleGenetics

FivePrime

SERVIER

genocea BIOSCIENCES

TESARO

NOTE: MKT CAP cutoff at $25B for Tier 2 companies

The contact log is an invaluable tool used for tracking outreach and optimizing the likelihood of transacting in a sell-side process

Tier	Company	Contact Log	Rationale	Teaser Sent	Reviewing	CDA	Mgmt. Pres.	Due Diligence	Data Room	Term Sheet	Def. Agree.	Passed
1	AbbVie	1/1: Sent initial outreach 1/5: Responded that there is interest	Leading global biopharma, orphan presence	1/1	1/5	1/30	2/15					
1	Actelion	1/1: Sent initial outreach 1/7: Passed via phone call	Orphan presence	1/1								1/7
1	Amgen	1/1: Sent initial outreach 1/18: Follow up email	Global biopharma, nephro. & orphan presence	1/1	1/20	2/21	3/12	4/1	4/5			
1	Bayer	1/1: Sent initial outreach 1/10: Forwarded to appropriate team	Leading global biopharma, nephrology presence	1/1	1/10							
1	Lilly	1/1: Sent initial outreach 1/18: Follow up email	Leading global biopharma, nephrology presence	1/1								
1	GSK	1/1: Sent initial outreach 1/12: Interest, familiar with program	Leading global biopharma, nephrology presence	1/1	1/12	1/18	2/10	3/1	3/15			
1	Janssen	1/1: Sent initial outreach 1/18: Follow-up email	Leading global biopharma, orphan presence	1/1	1/24	2/13	2/21					
1	Keryx	1/1: Sent initial outreach 1/15: Passed via email	Nephrology & orphan presence	1/1								1/15
2	Allergan	1/1: Sent initial outreach 1/19: Follow-up email	Leading spec. pharma, nephrology presence	1/1								
2	Chiesi	1/1: Sent initial outreach 1/9: Interest, met with company before	Spec. pharma, orphan presence	1/1	1/9	2/1	2/26	3/17				

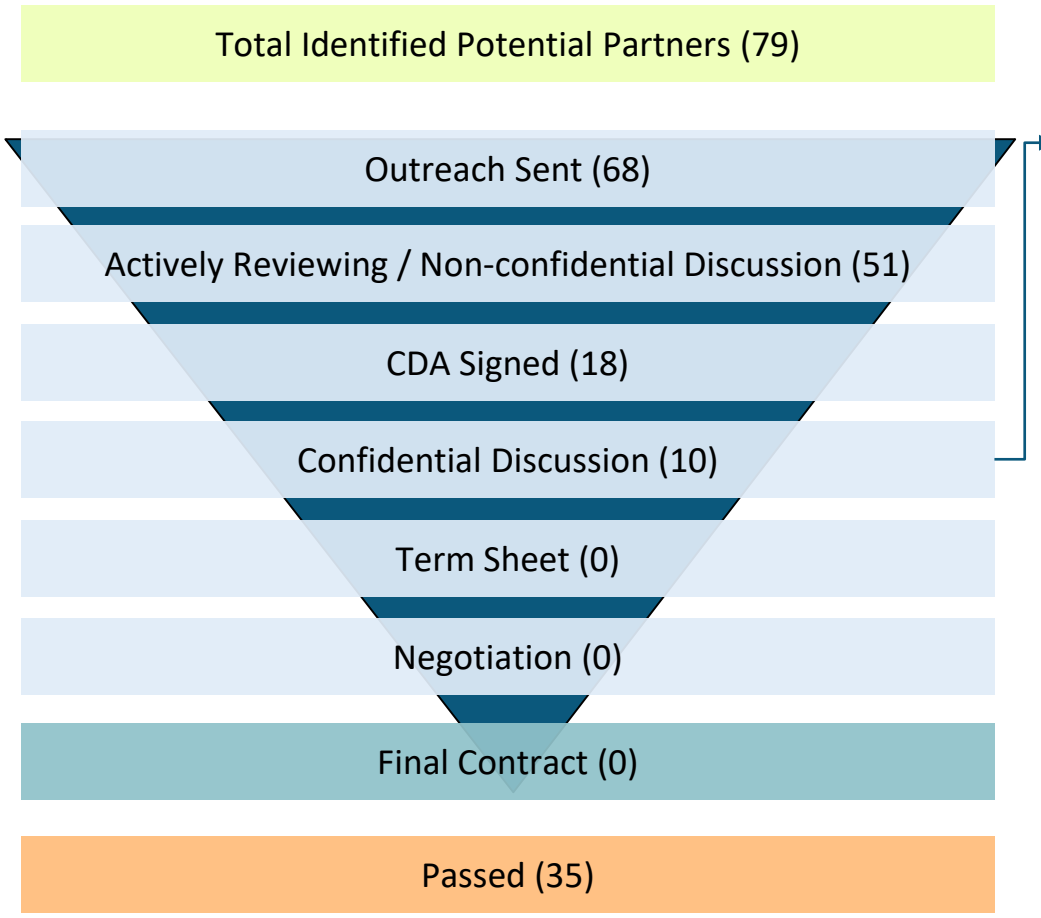
Why is the contact log important?

- **Tracks interactions and captures *who, what, when, why and next steps***
- **Enables easy status updates for management and board**
- **Builds institutional knowledge that can be re-used**

NOTE: Illustrative contact log from masked Locust Walk engagement

Present outreach summary in concise format

Outreach Process (US)



Likely Potential Partners (6)

Most Probable

Least Probable

Company A	*Description of current status derived from contact log notes*
Company B	*Description of current status derived from contact log notes*
Company C	*Description of current status derived from contact log notes*
Company D	*Description of current status derived from contact log notes*
Company E	*Description of current status derived from contact log notes*
Company F	*Description of current status derived from contact log notes*

NOTE: Outreach filter Locust Walk masked client analysis, representative companies are illustrative and not from actual client outreach

Though tiering is important, it is worthwhile to have broad outreach to non-obvious potential partners

Client: ASCENTA THERAPEUTICS

Malvern, PA

Partner: DEBIOPHARM GROUP

Lucerne, Switzerland

- Ascenta engaged Locust Walk as exclusive sell-side advisor to partner Phase 1 lead oncology program (AT-406)
- Successful process resulted in deal with Debiopharm of undisclosed value
- Debiopharm was considered a "Tier 3" company in initial contact log and ~60 other companies were contacted previously

Client: INTERMUNE

Brisbane, CA

Partner: Vidara THERAPEUTICS

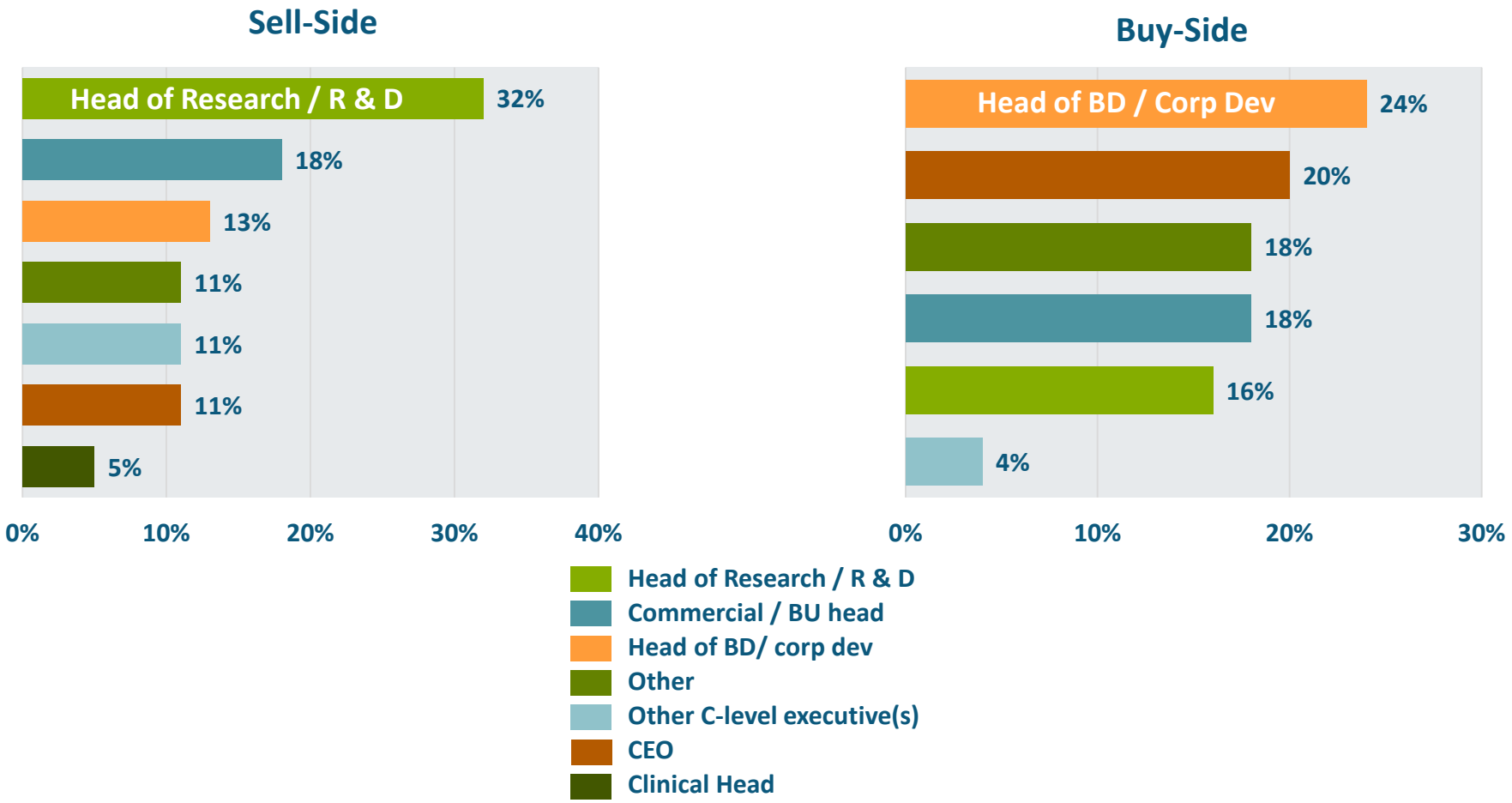
Alpharetta, GA

- InterMune engaged Locust Walk as exclusive sell-side advisor to divest commercial-stage orphan-indicated Actimmune
- Successful process resulted Vidara's $55M product acquisition of Actimmune
- Vidara was considered a lower tier company in initial contact log and >85 groups (companies and investors) were contacted previously
- Only one other party submitted a term sheet offer
- Vidara was acquired by Horizon for $660M ~two years later

Getting to the right champion

- Once contact log is constructed, who do you contact?
  - Business development, R&D, other?

Who do you feel plays the most important role in the {partner/your} firm to get a deal "across the goal line"?



Sell-side perceives the buy-side heads of R & D as the key players in getting deals done, while buy-side BD appears to be more self-important…

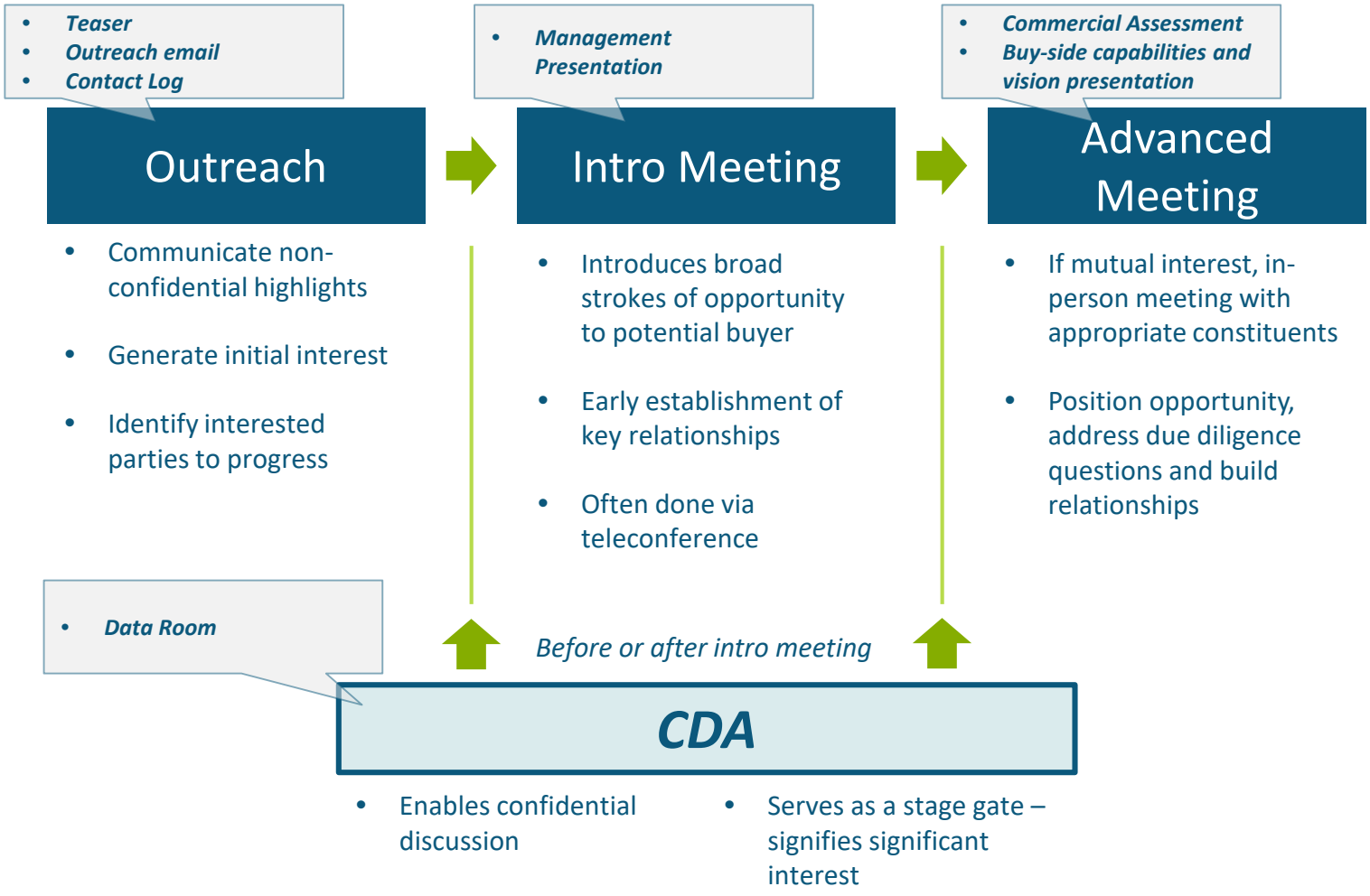
SOURCE: Locust Walk Survey

LOCUST WALK®

DUE DILIGENCE:

PROVIDE ORGANIZED, COORDINATED DATA FOR PARTNER DUE DILIGENCE

Materials and documentation needed to support deal process



The data room is an online file structure with the client's confidential information that can be accessed by a party conducting due diligence

1. Corporate Overview
- Corporate Presentations
- Executive Team / Board of Directors
- Corporate Structure

2. Product Overview
- Non-Confidential Information
- Confidential Information
- Q&A Responses

3. Commercial
- Market Research
- Revenue Projections

4. Non-Clinical Data
- Program Overview
- Completed Studies
- References and Other

5. Clinical Data
- Program Overview
- Investigator's Brochure
- Completed Studies
- Planned / Ongoing Studies
- References

6. Regulatory
- US
- EU
- Other

7. Intellectual Property
- Overview
- Patent Estate
- Granted Patents
- Previous Summaries

8. CMC
- CMC Overview
- Drug Substance
- Drug Product
- Other

Sample Data Room Providers

ansarada

Firmex

INTRALINKS

MERRILLCORPORATION
SECURE SUCCESS

ShareVault
Collaborative Due Diligence

An organized tracker of all due diligence questions allows team to focus on high priority items and make note of completed requests

Date Submitted	Category	Priority	Question	Overall Status	Date Answered	Answer
4/18/17	Finance	High	Please provide a list of headcount (positions) by function.	Closed	4/21/17	In data room
4/18/17	Legal	High	Please provide unredacted copies of the following documents: technology licensing agreement, R&D services agreement	In Progress	4/26/17	
4/19/17	Legal	High	Is the 2013 Commercial Outsourcing Services Agreement still in existence?	Closed	4/23/17	No
4/19/17	Tax	Medium	Please provide the current cash flow forecast at whatever frequency and tenor is used for management reporting.	In Progress	4/22/17	In data room
4/20/17	Quality	Medium	Please provide a copy of your quality manual.	Closed	4/24/17	In data room
4/21/17	Finance	High	Can you provide a breakdown of the COGS from a percentage of wholesale price?	Closed	4/22/17	COGS are 5% of wholesale price
4/22/17	Tax	High	Can you provide any cost sharing arrangements with affiliate organizations?	Open		
4/22/17	Quality	High	Please provide copy of your organization chart, including quality organization.	Open		
4/25/17	Finance	High	Please provide the rationale for such a steep revenue increase from year 3 to year 4 in model	Open		
4/25/17	Legal	Medium	How widely held are the 2015 warrants?	Open		
4/25/17	Tax	Medium	What is the projected tax loss for the year ending 12/21/16	In Progress	4/26/17	In data room
4/26/17	Quality	Medium	Please provide a listing of all company policies, procedures, etc.	Open		

NOTE: Illustrative due diligence tracker from masked Locust Walk engagement

Partner due diligence provides an opportunity to go beyond simple fact-finding

Demonstrate Credibility as Seller / Licensor

- Be upfront about any of the product's deficiencies that may exist
- Partners will eventually discover any blemishes as due diligence progresses
- If honest and upfront, perception of any missing or suboptimal information will be viewed as trust-building instead of deceptive

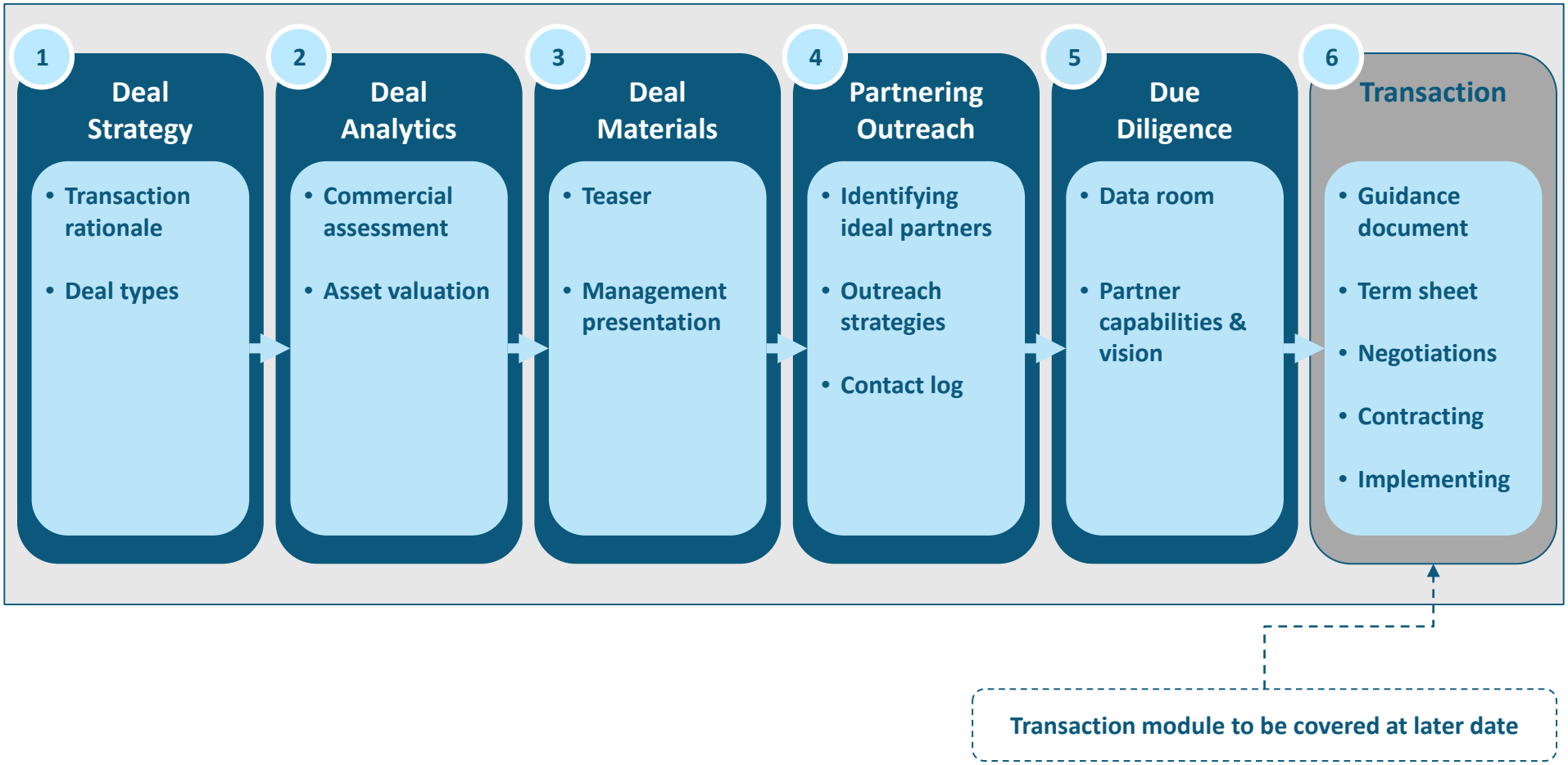
Strengthen Relationship between Parties

- The due diligence process is where one-on-one conversations between the two parties begin to take place
  - Coordination between science teams, IP teams, BD teams, etc.
- Cross-functional relationships help strengthen the likelihood of identifying internal champion to drive program forward

Two-way Due Diligence: Ability to Evaluate Potential Partner

- Crucial for partner to illustrate how they envision the asset under their control
- Company needs to comprehensively understand the partner's development and commercialization capabilities
- Significant value is captured by contingent payments – need to choose the partner most likely to achieve those payments

Locust Walk Institute sell-side process



Upcoming Locust Walk Institute webinar topics

- BioPharma Buy-Side Deal Process Keys to Success
- BioPharma Sell-Side Transaction Execution – How to Negotiate the Best Deal
- Overview of BioPharma Venture Finance
- BioPharma Valuation Analysis
- BioPharma Partnering and Financing Term Sheet Review
- BioPharma Partnering in Japan
- BioPharma Partnering in Europe
- MedTech Business Development Best Practices

*Please let us know what are some other topics you would like to see covered in future webinars. Email maria@locustwalk.com and we will try to accommodate your request.